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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/530,936	08/18/2000	Detlef Pickert	11150/8	6338

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EXAMINER

MCCALL, ERIC SCOTT

ART UNIT PAPER NUMBER

2855

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/530,936

Applicant(s)

PICKERT ET AL.

Examiner

Eric S. McCall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 33,36 and 39-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-44 and 48-52 is/are allowed.
- 6) ☒ Claim(s) 33,36,39,40,45-47,53 and 54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 19 June 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) g.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**METHOD AND DEVICE FOR MONITORING
AND/OR DETERMINING MOTOR OIL QUALITY**

FINAL OFFICE ACTION

In response to the Applicant's amendment (paper no. 20) dated May 07, 2003.

INFORMATION DISCLOSURE STATEMENT

In response to the Applicant's comments pertaining to the information disclosure statement, the Examiner has previously considered the documents in question in response to the Applicant's initial comments in the amendment dated Oct. 24, 2001. As per the Applicant's request, the Examiner hereby includes a copy of the revised copy of the PTO-1449 paper.

DRAWINGS

In response to the Applicant's comments pertaining to the drawings, the Examiner verifies that the statement in the previous office action that new drawings are required is correct. The Examiner points out that the submitted drawing correction by Applicant was a "proposed" informal drawing correction seeking the Examiner's approval of the substance of the correction. That proposed drawing correction has been approved by the Examiner, but the Applicant still needs to submit formal drawings incorporating those "proposed" informal drawing changes.

As such, a proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

CLAIMS

35 U.S.C. § 112

(First Paragraph)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 33, 36, 39, 40, and 53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The Applicant has amended claim 39 to state that the determining and evaluating a change of the oil viscosity is made "indirectly". The Applicant then states that support for such an amendment "may be found throughout the specification". The Examiner points out that the Applicant has not "clearly" stated in the originally filed disclosure that such a measurement is made "indirectly", thus proper support and enablement fail to exist for said amendment to the claim.

The Applicant is asked to specifically point out where in the specification support can be found for the limitation of indirectly determining and evaluating a change of the oil viscosity because the generalized statement of "support may be found throughout the specification" does not point out where the proper support exists.

(Second Paragraph)

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 33, 36, 39, 40, and 53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

The Applicant has amended claim 39 to state that the determining and evaluating a change of the oil viscosity is made "indirectly". The Applicant then states that support for such an amendment "may be found throughout the specification". The Examiner points out that the Applicant has not clearly defined the meaning of the term "indirectly" and thus indefiniteness exists in the interpretation of the claim as to the meaning of "indirectly".

The Applicant is asked to specifically point out where in the specification a definition can be found for the term "indirectly" as used in the limitation of indirectly determining and evaluating a change of the oil viscosity.

35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33, 36, 39, 40, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vermeiren (4,888,976).

With regards to claim 39, Vermeiren teaches a method of indirectly determining motor oil quality, comprising the steps of:

determining a viscosity of the motor oil during operation of an internal combustion engine (col. 1, lines 18-21); and

indirectly determining and evaluating a change of the viscosity as an inherent function of a temperature and as a function of the power required to obtain a given motor speed (col. 1, lines 18-21).

Although Vermeiren fails to explicitly teach that the change in viscosity is a function of engine temperature, the Examiner contends that such a teaching is inherent because as it is very well known to one having ordinary skill in the art (see below arguments) oil viscosity is very dependent upon engine temperature.

Nonetheless, Vermeiren fails to teach the determining of a change in oil viscosity as a function of frictional torque of the engine. However, it would have been obvious to one having ordinary skill in the art armed with said teaching to determine a change in oil viscosity as a function of frictional torque of the engine. The motivation being that Vermeiren discloses in col. 1, lines 11-13 that oil viscosity is determined from a measured motor parameter. The Applicant has claimed that the oil viscosity is determined from a measured motor parameter in that frictional torque is a measured motor parameter. Continuing, the Applicant has defined the frictional torque as being the difference between the starter power and the acceleration power.

As such, Vermeiren teaches (col. 1, lines 18-20) that the measured motor parameter is the power required to obtain a given motor speed which would suggest to one having ordinary skill in the art as being the frictional power from which the Applicant claimed frictional torque is determined.

With regard to claims 33 and 36, Vermeiren suggests a controller (13) for processing and transforming measured data, and a memory unit (12) with characteristic curves therein.

With regards to newly added claim 53, the viscosity of the prior art is determined by measuring the power that must be supplied to motor to obtain a given motor speed. Motor speed is a parameter which is "available" in a motor (engine) control unit.

Response to Arguments

The Applicant has argued that the prior art fails to suggest the Applicant's invention as claimed. First, the Applicant points out that claim 39 has been amended to state that the determining and evaluating a change of the oil viscosity is made "indirectly". The Applicant then states that support for such an amendment "may be found throughout the specification". The Examiner points out that (1) the Applicant has not clearly defined the meaning of the term "indirectly" and thus indefiniteness exists in the interpretation of the claim as to the meaning of "indirectly", and (2) the Applicant has not clearly stated in the originally filed disclosure that

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such a measurement is made “indirectly”, thus proper support and enablement fail to exist for said amendment to the claim.

The Applicant is asked to specifically point out where in the specification support can be found for the limitation of indirectly determining and evaluating a change of the oil viscosity because the generalized statement of “support may be found throughout the specification” does not point out where the proper support exists.

Next, the Applicant argues that the teaching of the prior art at col. 1, lines 11-13 is misleading in that the prior art does not teach an “indirect” method for measuring viscosity. The Applicant goes on to state that the prior art teaches a “direct” method. The Examiner points out that even if the prior art was to teach a direct method, it also suggests an indirect method to a certain extent because the prior art explicitly states that the viscosity is determined from a measured power. This determination is, according to the Applicant’s interpretation, an “indirect” method, and thus in the hands of one having ordinary skill in the art, one would have motivation to determine viscosity in an “indirect” way. Furthermore, the Examiner points out that the Applicant has not claimed any specific embodiment of such an indirect method and thus, in view of the above rejection under 35 USC 112, such a method is open for interpretation because the term “indirect” is merely a relative term.

In their arguments, the Applicant has relied heavily upon the disclosure of their specification and very little on the language of their claims. The Examiner points out that the

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claims are that which are examined and the claims are to be given their broadest reasonable interpretation.

Next, the Applicant argues that the prior art fails to teach the determining of a viscosity of the motor oil during operation of an internal combustion engine. In response, the Examiner points out that, as the Applicant has claimed, the prior art does suggest determining motor oil viscosity during internal combustion engine operation. The Examiner points out that the Applicant has not claimed that the viscosity determined is that of oil which is actually in the engine during the viscosity determination. The prior art determines the viscosity away from the motor (engine) but that determination is representative of the viscosity in the engine during operation. Thus, the prior art does suggest determining a viscosity of the motor oil during operation of an internal combustion engine. The Examiner believes that the Applicant is reading the phrase in question more restrictive than the actual language warrants.

As for the Applicant's device being an internal combustion engine, the prior explicitly teaches a "motor", and it is the Examiner's contention that, in the hands of one having ordinary skill in the art, the prior art would suggest that if the taught method could be carried out on a motor, it also would work for an internal combustion engine because both make use of oil, both subject oil to similar environments, and viscosity is a parameter of the oil not the intended device that the oil is to be used in.

Next, the Examiner, in the pending rejection, made the contention that oil viscosity is very dependent upon engine temperature. The Applicant has traversed this contention and thus

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the Applicant argues that oil viscosity is not dependent upon engine temperature. The Applicant has asked for evidence from the Examiner to back up the Examiner's contention. As such, the Examiner turns to the Applicant's own admitted prior art, and even more so, the Applicant's own description of the prior art. The Applicant has disclosed European Patent 174 601 as admitted prior art and, in their own words describing the prior art, state that the condition of the oil is evaluated and that the condition is dependent on, among other things, oil temperature (App's spec, page, 2, lines 1-5). And also, the Applicant has described admitted prior art, German Patent 41 31 969, by stating that an oil condition is based on oil temperature (App's spec, page 2, lines 6-13). Thus, the Examiner states that the Applicant's themselves have stated that an oil condition, and thus oil viscosity, is dependent upon oil temperature. The Examiner believes that the Applicant's own admission clearly supports the Examiner's position.

Finally, the Applicant contends that because the Examiner did not explicitly recite in his rejection the words "at the time of the invention" in the phrase "it would have been obvious to one having ordinary skill in the art at the time the invention was made to....", the rejection is improper. The Examiner disagrees. The statement in question is directed to one having ordinary skill in the art and one having ordinary skill in the art would recognize that such a phrase implicitly includes the phrase "at the time of the invention" for if the rejection did not imply the phrase "at the time of the invention" then a reference could not even apply under 35 USC 103.

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Claims 33, 36, 45-47, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vermeiren (4,888,976).

Claim 45 parallels that of claim 39 but does require the particulars of the engine temperature as in claim 39 nor the determining of the change in oil viscosity. Thus, the Applicant's attention is directed to the above remarks regarding claim 39 minus the remarks about viscosity being dependent upon the engine temperature.

Regarding claims 33 and 36, see the corresponding above remarks.

With regards to claim 46, in addition to the above remarks, the suggestion of determining engine frictional torque corresponds to "estimating" engine frictional torque.

With regards to newly added claim 54, the viscosity of the prior art is determined by measuring the power that must be supplied to motor to obtain a given motor speed. Motor speed is a parameter which is "available" in a motor (engine) control unit.

Response to Arguments

With regards to claim 45, the Examiner has stated that claim 45 parallels but does require the particulars of the engine temperature nor the determining of the change in oil viscosity as in

claim 39. The Applicant has stated that they disagree but they have never given any reasons as to their reasoning. Clearly, claim 45 does not require all the features of claim 39, for the term "temperature" or the phrase "change in" do not even appear in claim 45.

Furthermore, the Examiner contends that claim 45 is not patentable over the prior art for at least the reasons presented above pertaining to claim 39.

Allowable Subject Matter

Claims 41-44 and 48-52 have been found to be allowable over the prior art.

CONCLUSION


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Eric S. McCall at telephone number (703) 308-6968.


Eric S. McCall
Primary Examiner
A.U. 2855
July 01, 2003